

# Clair Nolan

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## ● ABOUT ME

With a Master of Science in Mathematics & Statistics, hands-on experience in data analysis, machine learning, and statistical modeling, as well as proficiency in tools such as **Python**, **SQL**, **Tableau**, and **Power BI**, I am confident in my ability to contribute to your team's efforts in advancing the university's data and analytics capabilities. In my recent projects, I have demonstrated my ability to work with large datasets, apply machine learning techniques, and derive actionable insights. For example, in the project "**Cyclitic User Insights**", I conducted an exploratory data analysis (EDA) on bike-share data using **Pandas** and **NumPy**. I built and evaluated a logistic regression model to classify user types and provided data-driven marketing strategies to enhance user retention. In another project, "**Predicting Job Success with HR Analytics**", I used **Python**, **SQL**, **Power BI**, and **Tableau** to develop a predictive model for employee attrition, delivering insights that supported workforce retention strategies. Additionally, my experience as a **High School Math Instructor** and **University Math Instructor** has strengthened my communication skill and problem-solving ability. I used **Excel** and other data tools to monitor and analyze student performance, which helped improve student engagement by implementing data-driven teaching strategies. This combination of teaching experience and analytical skills has allowed me to effectively communicate findings and translate technical information into practical insights that support decision-making. I am particularly excited about the opportunity to collaborate with your team and contribute to the development and optimization of analytical products and services that drive institutional effectiveness. I look forward to bringing my passion for data science and problem-solving to NC State and supporting the university's mission through data-driven decision-making.

## ● WORK EXPERIENCE

08/10/2023 – 05/20/2024 Champion, United States  
**HIGH SCHOOL MATH TEACHER** DELAND WELDON HIGH SCHOOL

- Taught Algebra, Geometry, precalculus
- Use dashboard to present and interact with students
- Analyze the data of students score and spot the trend and taking action to adjust teaching strategies to improve students' performance.
- Communicate with stakeholders( such as parents, principle, etc.)

## ● EDUCATION AND TRAINING

08/17/2016 – 12/09/2018 Edwardsville, United States  
**MASTER OF SCIENCE** Southern Illinois University Edwardsville

## ● LANGUAGE SKILLS

Mother tongue(s): **MANDARIN**  
Other language(s): **ENGLISH**

## ● SKILLS

Microsoft Excel | Microsoft Office | Zoom | Python (computer programming) | SQL | Power Bi | Cloud computation | Data analysis | PowerBI - Data visulization | Machine Learning | Statistic Modeling | Teamwork | Presentation | Storytelling | Detail orientation

## ● PROJECTS

### Bike Membership

Cyclistic is a bike-share program that features more than 5,800 bicycles and 600 docking stations. Cyclistic sets itself apart by also offering reclining bikes, hand tricycles, and cargo bikes, making bike-share more inclusive to people with disabilities and riders who can't use a stand rd two-wheeled bike. The majority of riders opt to traditional bikes A about

8% of riders use the assistive options. Cyclistic users are more likely to ride for leisure, but about 30% use the bikes to commute to where they are working.

This project aims to find out how casual riders and annual members use Cyclistic bikes differently and design a new marketing strategy to convert casual riders into annual member.

## **Hr Analytic Job Prediction**

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Salifort Motors is a fictional French-based alternative energy vehicle manufacturer. Its global workforce of over 100,000 employees research, design, construct, validate, and distribute electric, solar, algae, and hydrogen-based vehicles. Salifort's end-to-end vertical integration model has made it a global leader at the intersection of alternative energy and automobiles.

For this deliverable, I will choose a method to approach this data challenge , selecting either a regression model or a machine learning model to predict whether an employee will leave the company.

The primary objective of this project is to create a model that predicts employee attrition. The successful implementation of this predictive model will equip Salifort Motors with valuable insights, enabling them to make data-driven decisions to retain their workforce. A comprehensive analysis of the HR dataset has been conducted, and data preprocessing, exploratory data analysis, and feature engineering have been carried out to prepare the data for model development.